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ACETALDEHYDE DEHYDRATION TO PRODUCE ETHYNE

ABSTRACT

A process to produce ethyne comprising passing acetaldehyde in the gas phase through a reaction zone containing a dehydrating metal oxide catalyst such as aluminum oxide or magnesium oxide at a temperature of approximately 375 C to produce ethyne and water and a cooling zone following the reaction zone.

This method having the advantage of ease of separation of ethyne from the co-product water and unreacted acetaldehyde by simple condensation whereby the acetaldehyde and water liquify while The ethyne remains gaseous.